

BLAST

NCBI's sequence similarity search tool designed to support analysis of nucleotide and protein databases.

Overview

NEW The Old (ungapped) BLAST service has been moved to the bottom of the page. NCBI recommends the use of BLAST 2.0 (Gapped BLAST), as this is a newer, improved service.

BLAST FAQs

BLAST 2.0

New/Noteworthy
NEW PHIBLAST

- Basic BLAST search
- Advanced BLAST search

Manual

Position Specific Iterated BLAST

References

• PSI-BLAST search

NCBI Home

NEW Pattern Hit Initiated BLAST

NLM Home

• PHI-BLAST search

NIH Home

NEW BLAST 2 sequences against each other

• BLAST 2 sequences

Credits

Specialized BLAST pages

- Unfinished microbial genomes NEW
- P. falciparum
- TIGR Tentative Human Consensus (THC) sequences

Old (ungapped) BLAST page

• Ungapped BLAST search



Exhibit C

General NCBI information: < info@ncbi.nlm.nih.gov > BLAST questions: < blast-help@ncbi.nlm.nih.gov >

NCBI	Advanced BLAST Entrez ?
Clear Input Basic BLAST	
Message of the day Gapped BLAST (BLAST version 2.0) is now available!	Choose program to use and database to search: Program blastp Database nr
The query sequence is <u>filtered</u> for low complexity regions by default.	
Depending on server load your search may take several seconds to several minutes. Note: Nothing will be returned until your search is complete.	
Enter here your input data ssqyrgvtfyrrtgrweshiddydddl	Sequence in FASTA format Submit Query was wdcgkqvylggfdtahaaaraydraaikfrgveadinfni
Please read about <u>FASTA</u> format description	
Advanced options for the BLAST server:	
Expect default Cutoff Strand both Filter Descriptions default Cutoff Cut	none Histogram NCBI-gi Alignments
Other advanced options:	
The BLAST server may be very busy during the weekday, resulting in delays for users. The email option allows a user to receive the results quickly in a convenient form. If the HTML option is used, the results should be loaded into a web browser for viewing.	
☐ Send reply to the Em	ail address:
Submite Query.	
Comments and suggestions to: < <u>blast-help@ncbi.nlm.nih.gov</u> > Credits to: <u>Sergei B. Shavirin</u> Acknowledgements to: <u>Tom Madden</u> and <u>Jonathan Epstein</u>	

10/22/98

Smallest

NCBI BLAST Search Results

Entrez ?

Your query has been submitted, please wait for results

BLASTP 1.4.11 [24-Nov-97] [Build 24-Nov-97]

Reference: Altschul, Stephen F., Warren Gish, Webb Miller, Eugene W. Myers, and David J. Lipman (1990). Basic local alignment search tool. J. Mol. Biol. 215:403-10.

Database: Non-redundant GenBank CDS

translations+PDB+SwissProt+SPupdate+PIR

331,304 sequences; 101,007,400 total letters.

Searching......done

Sum Probability Score P(N) Sequences producing High-scoring Segment Pairs: sp P47927 AP2 ARATH FLORAL HOMEOTIC PROTEIN APETALA2 /gi... 368 1.le-43 gi 2944040 (AF048900) indeterminate spikelet 1 ... 345 1.9e-40 (AF003100) AP2 domain containing pro... 340 9.5e-40 gi 2281639 (U41466) AP2 DNA-binding domain prot... 327 6.4e-38 gi 1732031 (AC004697) putative floral homeotic ... 319 8.5e-37 gi 3402680 (AF001012) GLOSSY15 [Zea mays] 205 9.0e-21 gi | 2098818 126 2 (AC002339) putative AP2 domain-conta... 1.3e-16 gi 2887500 AP2 domain-containing protein - Arab... 116 6.6e-16 pir | S71365 (U44028) CKC [Arabidopsis thaliana] 116 6.6e-16 gi 1171429 (Z47554) orf [Zea mays] 123 3.2e-15 <u>qn1|PID|e1188628</u> 123 3.0e-09 pir | S54116 hypothetical protein - maize (AF003101) AP2 domain containing pro... <u>112</u> 1.1e-07 gi 2281641 (AF003099) AP2 domain containing pro... 110 2.0e-07 gi | 2281637 (D38125) EREBP-4 [Nicotiana tabacum] 110 2.0e-07 gnl | PID | d1007901 110 2.0e-07 (AC005687) RAP2.6 [Arabidopsis thali... gi 3617742 106 7.4e-07 (AC000104) Similar to Nicotiana EREB... qi 1903358 105 1.0e-06 (AB008107) ethylene responsive eleme... gnl PID d1033384 (AC002535) putative AP2 domain conta... 101 1.1e-06 gi 2529675 100 (AF003098) AP2 domain containing pro... 2.7e-06 gi 2281635 100 (AB008106) ethylene responsive eleme... 2.8e-06 gn1 | PID | d1033383 101 3.7e-06 (U78721) cadmium-induced protein iso... gi | 1707016 101 3.7e-06 (AF003095) AP2 domain containing pro... qi 2281629 (U89256) Pti5 [Lycopersicon esculentum] 100 5.1e-06 gi 2213783 (D38124) EREBP-3 [Nicotiana tabacum] 97 7.3e-06 gnl | PID | d1007900 (U81157) S25-XP1 DNA binding protein... 98 9.8e-06 gi 1732406 95 (AF080120) contains similarity to AP... 1.3e-05 gi 3600050 97 (AB013301) ethylene responsive eleme... 1.4e-05 gnl | PID | d1032484 97 (AB008105) ethylene responsive eleme... 1.4e-05 1 qn1 | PID | d1033382 97 1.4e-05 (Z97343) EREBP-4 homolog [Arabidopsi... <u>qnl PID e327065</u> 95 1.5e-05 (U89257) Pti6 [Lycopersicon esculentum] gi 2213785 96 1.9e-05 (AF003105) AP2 domain containing pro... gi 2281649 96 1.9e-05 gnl | PID | d1033380 (AB008103) ethylene responsive eleme... 1 93 4.9e-05 (U89255) Pti4 [Lycopersicon esculentum] gi 3342211

```
(AF071893) AP2 domain containing pro...
                                                                   93 4.9e-05
gi 3264767
                      (AF058827) TSI1 [Nicotiana tabacum]
                                                                   <u>91</u> 5.4e-05
qi 3065895
                      (U77655) DNA binding protein homolog...
                                                                   74 8.0e-05
                                                                                  3
qi | 1688233
                                                                   91 9.5e-05
                      (D38126) EREBP-2 [Nicotiana tabacum]
qn1 | PID | d1007902
                                                                   90 0.00013
                      (AC002388) EREBP isolog [Arabidopsis...
gi 2344900
                                                                   <u>90</u> 0.00013
                      (AF003097) AP2 domain containing pro...
qi 2281633
                      (AB008104) ethylene responsive eleme...
                                                                   <u>88</u> 0.00025
qn1 | PID | d1033381
                      (AL022605) putative protein [Arabido...
                                                                   88 0.00025
qn1 | PID | e1287891
                      (AJ001911) putative Ckc2 [Arabidopsi...
gnl PID e353340
                                                                   88 0.00025
                      (AF003096) AP2 domain containing pro...
                                                                   87 0.00034
qi 2281631
                                                                   <u>87</u> 0.00034
                      (D38123) ERF1 [Nicotiana tabacum]
qn1 | PID | d1007899
                                                                   <u>82</u> 0.00039
gnl | PID | e1283534
                      (AL022197) transcriptional activator...
                                                                   <u>82</u> 0.00039
                      (U77378) transcriptional activator C...
                                                                                  2
gi 1899058
                      (AF003102) AP2 domain containing pro...
                                                                   <u>86</u> 0.00048
qi 2281643
                      (AL021710) EREBP - like protein [Ara...
                                                                   85 0.00066
gnl | PID | e1249610
                      (Z99707) APETALA2 domain containing ...
                                                                   83 0.00066
gnl | PID | e353195
                                                                   81 0.00090
                      (AF003104) AP2 domain containing pro...
                                                                                  2
gi 2281647
                                                                   84 0.00091
                      (AB013817) DREB1C [Arabidopsis thali...
qn1 | PID | d1034402
                                                                   84 0.00091
                      (AL022197) transcriptional activator...
qnl | PID | e1283536
                                                                   81 0.0011
                      (AC002391) putative AP2 domain conta...
qi 2642430
                      (AF003103) AP2 domain containing pro... 83 0.0013
qi 2281645
                                                                 82 0.0017
                      (AB007787) DREB1A [Arabidopsis thali...
gnl | PID | d1034763
                                                                  82 0.0017
                      (AB013815) DREB1A [Arabidopsis thali...
gnl | PID | d1034400
sp|P42736|CDI3_ARATH_CADMIUM-INDUCED_PROTEIN_AS30_/pir||S...
                                                                  82 0.0017
                                                                  82 0.0017
gnl PID e1283535
                      (AL022197) transcriptional activator...
                                                                   81 0.0024
                      (AC005397) putative Ap2 domain prote...
qi 3702318
                                                                   81 0.0024
                      (AL022198) putative protein [Arabido...
gnl | PID | e1283544
                                                                   80 0.0033
gi|3643601
                      (AC005395) hypothetical protein [Ara...
                                                                   79 0.0046
gi 3540200
                      (AC004260) Similar to TINY [Arabidop...
                                                                   79 0.0046
gi | 3282693
                      (AF040959) AP2 domain family transcr...
                     (AC000103) F21J9.6 [Arabidopsis thal...
                                                                   79 0.0046
gi 2213612
                    (AF003094) AP2 domain containing pro...
                                                                   74 0.0076
gi 2281627
                                                                   77 0.0087
                    (AC002388) TINY transcription factor...
gi 2344890
gi|3395430
gi|2062174
gnl|PID|d1034766
                                                                   76 0.012
                    (AC004683) putative AP2 domain conta...
                                                                   76 0.012
                     (AC001645) transcription factor (TIN...
                                                                   75 0.017
                      (AB007790) DREB2A [Arabidopsis thali...
                                                                  75 0.017
                      (AB007791) DREB2B [Arabidopsis thali...
                      (X94698) TINY [Arabidopsis thaliana]...
                                                                  73 0.032
qn1 | PID | e218696
                                                                  72 0.043
                      (AF057373) ethylene response element...
gi 3695034
                                                                   68 0.15
sp P16146 PZ02 LUPPO PPLZ02 PROTEIN /pir | S11881 hypothet...
                                                                                  1
                                                                   61 0.79
                      (X52071) unidentified product (195 A...
qi 47216
                                                                                  1
                      (Z32686) mrpD gene product [Proteus ... 58 0.98
gi 485957
                      (AF055873) lignostilbene-alpha, beta-... 47 0.998
gi 3033545

      sp | P34114 | PHS2 DICDI
      GLYCOGEN PHOSPHORYLASE 2 (GP2) /pir | . . .
      56 0.9996

      gi | 2065531 (U78526) endo-1,4-beta-glucanase [Ly... 56 0.9996

                                                                  56 0.9996
sp|P32932|VNS2 BTV1S NONSTRUCTURAL PROTEIN NS2 /pir||JC12...
                                                                                  1
                                                                   56 0.9996
                      (D86222) glutamine synthetase [Pyroc...
gnl | PID | d1021365
```

Score = 368 (171.8 bits), Expect = 1.1e-43, P = 1.1e-43Identities = 67/67 (100%), Positives = 67/67 (100%)

Query: 1 SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNI 60 SSOYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNI

```
129 SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNI 188
Sbjct:
          61 DDYDDDL 67
Query:
             DDYDDDL
        189 DDYDDDL 195
Sbjct:
 Score = 40 (18.7 bits), Expect = 6.2e-09, Sum P(2) = 6.2e-09
 Identities = 7/11 (63%), Positives = 10/11 (90%)
           1 SSQYRGVTFYR 11
Query:
             SS+YRGVT ++
Sbjct:
        221 SSKYRGVTLHK 231
 Score = 114 (53.2 bits), Expect = 6.2e-09, Sum P(2) = 6.2e-09
 Identities = 25/43 (58%), Positives = 30/43 (69%)
        25 KQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67
Query:
                        AARAYD+AAIK G +A NF+
             K VYLG FDT
        246 KYVYLGLFDTEVEAARAYDKAAIKCNGKDAVTNFDPSIYDEEL 288
Sbjct:
gi|2944040 (AF048900) indeterminate spikelet 1 [Zea mays]
            Length = 433
 Score = 345 (161.1 bits), Expect = 1.9e-40, P = 1.9e-40
 Identities = 61/67 (91%), Positives = 66/67 (98%)
Query:
           1 SSOYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNI 60
             SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRG++ADINF++
Sbjct:
        110 SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGLDADINFSL 169
Query:
          61 DDYDDDL 67
              DY+DDL
Sbjct:
        170 SDYEDDL 176
 Score = 40 (18.7 bits), Expect = 7.7e-08, Sum P(2) = 7.7e-08
 Identities = 7/11 (63%), Positives = 10/11 (90%)
           1 SSOYRGVTFYR 11
Query:
             SS+YRGVT ++
Sbict:
        202 SSKYRGVTLHK 212
 Score = 106 (49.5 bits), Expect = 7.7e-08, Sum P(2) = 7.7e-08
 Identities = 22/40 (55%), Positives = 27/40 (67%)
Query:
         25 KQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYD 64
             K +YLG FD+
                         AARAYDRAA++F G EA NF
        227 KYIYLGLFDSEVEAARAYDRAALRFNGREAVTNFEPSSYN 266
Sbjct:
gi|2281639 (AF003100) AP2 domain containing protein RAP2.7 [Arabidopsis
            thaliana]
            Length = 403
 Score = 340 (158.7 bits), Expect = 9.5e-40, P = 9.5e-40
 Identities = 60/67 (89%), Positives = 65/67 (97%)
           1 SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNI 60
Query:
```

ılts

SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGV+ADINF +

Sbjct: 105 SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGVDADINFTL 164

Query: 61 DDYDDDL 67 DY++D+

Sbjct: 165 GDYEEDM 171

Score = 40 (18.7 bits), Expect = 0.017, Sum P(2) = 0.017

Identities = 7/11 (63%), Positives = 10/11 (90%)

Query: 1 SSQYRGVTFYR 11

SS+YRGVT ++

Sbjct: 197 SSKYRGVTLHK 207

Score = 64 (29.9 bits), Expect = 0.017, Sum P(2) = 0.017

Identities = 12/28 (42%), Positives = 18/28 (64%)

Query: 40 RAYDRAAIKFRGVEADINFNIDDYDDDL 67

+AYD+AAI G EA NF + Y +++

Sbjct: 222 KAYDKAAINTNGREAVTNFEMSSYQNEI 249

gi | 1732031 (U41466) AP2 DNA-binding domain protein [Zea mays]
Length = 446

Score = 327 (152.7 bits), Expect = 6.4e-38, P = 6.4e-38Identities = 58/67 (86%), Positives = 63/67 (94%)

Query: 1 SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNI 60

SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTA AAARAYD+AAIKFRG+ ADINF +

Sbjct: 111 SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAQAAARAYDQAAIKFRGLNADINFTL 170

Query: 61 DDYDDDL 67

DDY D++

Sbjct: 171 DDYKDEM 177

Score = 111 (51.8 bits), Expect = 1.5e-07, P = 1.5e-07Identities = 24/43 (55%), Positives = 29/43 (67%)

Query: 25 KQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67

K VYLG +DT AA+AYD+AAIK G EA NF+ YD +L

Sbjct: 228 KYVYLGLYDTETEAAQAYDKAAIKCYGKEAVTNFDAQSYDKEL 270

 $gi \mid 3402680$ (AC004697) putative floral homeotic protein [Arabidopsis thaliana] Length = 236

Score = 319 (148.9 bits), Expect = 8.5e-37, P = 8.5e-37 Identities = 56/67 (83%), Positives = 62/67 (92%)

Query: 1 SSQYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNI 60

SS YRGVTFYRRTGRWESHIWDCGKQVYLGGFDTA+ AARAYDRAAI+FRG++ADINF +

Sbjct: 106 SSHYRGVTFYRRTGRWESHIWDCGKQVYLGGFDTAYTAARAYDRAAIRFRGLQADINFIV 165

Query: 61 DDYDDDL 67

DDY D+

Sbjct: 166 DDYKQDI 172

gi | 2098818 (AF001012) GLOSSY15 [Zea mays] Length = 139Score = 33 (15.4 bits), Expect = 2.0e-09, Sum P(3) = 2.0e-09Identities = 6/11 (54%), Positives = 10/11 (90%) 1 SSQYRGVTFYR 11 Query: SS++RGVT ++ Sbjct: 72 SSRFRGVTQHK 82 Score = 30 (14.0 bits), Expect = 2.0e-09, Sum P(3) = 2.0e-09Identities = 4/9 (44%), Positives = 7/9 (77%) 12 RTGRWESHI 20 Query: + G+WE+ I 82 KCGKWEARI 90 Sbjct: Score = 111 (51.8 bits), Expect = 2.0e-09, Sum P(3) = 2.0e-09Identities = 24/43 (55%), Positives = 29/43 (67%) 25 KQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67 Query: K VYLG +DT AA+AYD+AAIK G EA NF+ YD +L 97 KYVYLGLYDTETEAAQAYDKAAIKCYGKEAVTNFDAQSYDKEL 139 Sbjct: Score = 205 (95.7 bits), Expect = 9.0e-21, P = 9.0e-21Identities = 37/46 (80%), Positives = 42/46 (91%) 22 DCGKOVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67 Query: DCGKQVYLGGFDTA AAARAYD+AAIKFRG+ ADINF +DDY D++ 1 DCGKQVYLGGFDTAQAAARAYDQAAIKFRGLNADINFTLDDYKDEM 46 Sbjct: gi|2887500 (AC002339) putative AP2 domain-containing protein [Arabidopsis thaliana] Length = 436Score = 84 (39.2 bits), Expect = 1.3e-16, Sum P(2) = 1.3e-16Identities = 15/22 (68%), Positives = 19/22 (86%) Query: 1 SSOYRGVTFYRRTGRWESHIWD 22 SS YRGVT +R TGR+E+H+WD Sbjct: 68 SSIYRGVTRHRWTGRYEAHLWD 89 Score = 126 (58.8 bits), Expect = 1.3e-16, Sum P(2) = 1.3e-16Identities = 27/52 (51%), Positives = 32/52 (61%) 16 WESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67 Query: GKQVYLG +D AAARAYD AA+K+ G INF + DY DL Sbjct: 93 WNQNQNKKGKQVYLGAYDDEEAAARAYDLAALKYWGPGTLINFPVTDYTRDL 144

pir||S71365 AP2 domain-containing protein - Arabidopsis thaliana

(U41339) ANT [Arabidopsis thaliana]

gi|1209099 (U40256) AINTEGUMENTA [Arabidopsis thaliana] gi|1244708

Length = 555

Score = 89 (41.6 bits), Expect = 6.6e-16, Sum P(2) = 6.6e-16Identities = 15/22 (68%), Positives = 20/22 (90%)

1 SSQYRGVTFYRRTGRWESHIWD 22 Query: +SOYRGVT +R TGR+E+H+WD 281 TSQYRGVTRHRWTGRYEAHLWD 302 Sbjct:

Score = 116 (54.2 bits), Expect = 6.6e-16, Sum P(2) = 6.6e-16Identities = 21/44 (47%), Positives = 30/44 (68%)

24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67 Query: G+QVYLGG+D AARAYD AA+K+ G NF+ ++Y ++

314 GRQVYLGGYDMEEKAARAYDLAALKYWGPSTHTNFSAENYQKEI 357 Sbjct:

Score = 56 (26.1 bits), Expect = 3.1e-11, Sum P(2) = 3.1e-11Identities = 10/20 (50%), Positives = 15/20 (75%)

1 SSQYRGVTFYRRTGRWESHI 20 Query: +S YRGVT + + GRW++ I 383 ASIYRGVTRHHQHGRWQARI 402 Sbjct:

Score = 115 (53.7 bits), Expect = 3.1e-11, Sum P(2) = 3.1e-11Identities = 25/42 (59%), Positives = 27/42 (64%)

25 KOVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDD 66 Query: AA AYD AAIKFRG A NF+I YD D K +YLG F T Sbjct: 409 KDLYLGTFGTQEEAAEAYDVAAIKFRGTNAVTNFDITRYDVD 450

gi | 1171429 (U44028) CKC [Arabidopsis thaliana] Length = 555

Score = 89 (41.6 bits), Expect = 6.6e-16, Sum P(2) = 6.6e-16Identities = 15/22 (68%), Positives = 20/22 (90%)

1 SSQYRGVTFYRRTGRWESHIWD 22 Query: +SOYRGVT +R TGR+E+H+WD 281 TSQYRGVTRHRWTGRYEAHLWD 302 Sbict:

Score = 116 (54.2 bits), Expect = 6.6e-16, Sum P(2) = 6.6e-16Identities = 21/44 (47%), Positives = 30/44 (68%)

24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67 Query: NF+ ++YG+OVYLGG+D AARAYD AA+K+ G Sbjct: 314 GRQVYLGGYDMEEKAARAYDLAALKYWGPSTHTNFSAENYQKEI 357

Score = 56 (26.1 bits), Expect = 3.1e-11, Sum P(2) = 3.1e-11Identities = 10/20 (50%), Positives = 15/20 (75%)

1 SSQYRGVTFYRRTGRWESHI 20 Query: +S YRGVT + + GRW++ I

383 ASIYRGVTRHHQHGRWQARI 402 Sbjct:

Score = 115 (53.7 bits), Expect = 3.1e-11, Sum P(2) = 3.1e-11Identities = 25/42 (59%), Positives = 27/42 (64%)

25 KQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDD 66 Query: AA AYD AAIKFRG A NF+I YD D K +YLG F T 409 KDLYLGTFGTQEEAAEAYDVAAIKFRGTNAVTNFDITRYDVD 450 Sbjct:

Score = 77 (36.0 bits), Expect = 3.2e-15, Sum P(2) = 3.2e-15Identities = 13/22 (59%), Positives = 19/22 (86%)

Query: 1 SSQYRGVTFYRRTGRWESHIWD 22 +S YRGVT +R TGR+E+H+W+ Sbjct: 138 TSIYRGVTRHRWTGRYEAHLWE 159

Score = 123 (57.4 bits), Expect = 3.2e-15, Sum P(2) = 3.2e-15Identities = 23/44 (52%), Positives = 30/44 (68%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67 G+QVYLGG+D AARAYD AA+KF G NF + +Y+ +L Sbjct: 171 GRQVYLGGYDKEEKAARAYDLAALKFWGPTTTTNFQVSNYEKEL 214

Score = 56 (26.1 bits), Expect = 5.4e-10, Sum P(2) = 5.4e-10Identities = 10/20 (50%), Positives = 15/20 (75%)

Query: 1 SSQYRGVTFYRRTGRWESHI 20 +S YRGVT + + GRW++ I Sbjct: 240 ASIYRGVTRHHQHGRWQARI 259

Score = 106 (49.5 bits), Expect = 5.4e-10, Sum P(2) = 5.4e-10Identities = 22/40 (55%), Positives = 26/40 (65%)

Query: 25 KQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYD 64
K +YLG F T AA AYD AAIKFRG+ A N ++ YD
Sbjct: 266 KDLYLGTFSTQEEAAEAYDIAAIKFRGLNAVTNLDMSRYD 305

pir||S54116 hypothetical protein - maize Length = 485

Score = 71 (33.2 bits), Expect = 0.061, P = 0.059 Identities = 12/26 (46%), Positives = 19/26 (73%)

Query: 1 SSQYRGVTFYRRTGRWESHIWDCGKQ 26 +S YRGVT + + GRW++ I CG++ Sbjct: 240 ASIYRGVTRHHQHGRWQARIRQCGRK 265

Score = 123 (57.4 bits), Expect = 3.0e-09, P = 3.0e-09Identities = 23/44 (52%), Positives = 30/44 (68%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67
G+QVYLGG+D AARAYD AA+KF G NF + +Y+ +L
Sbjct: 171 GRQVYLGGYDKEEKAARAYDLAALKFWGPTTTTNFQVSNYEKEL 214

$gi \mid 2281641$ (AF003101) AP2 domain containing protein RAP2.8 [Arabidopsis thaliana] Length = 334

Score = 112 (52.3 bits), Expect = 1.1e-07, P = 1.1e-07

Identities = 24/54 (44%), Positives = 35/54 (64%)

Query: 14 GRWESHIWDCGKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67

GRW + I++ ++V+LG F+ AAR+YD AA +FRG +A +NF D DL

Sbjct: 56 GRWGAQIYEKHQRVWLGTFNEQEEAARSYDIAACRFRGRDAVVNFKNVLEDGDL 109

gi|2281637 (AF003099) AP2 domain containing protein RAP2.6 [Arabidopsis

thaliana]
Length = 164

Score = 110 (51.4 bits), Expect = 2.0e-07, P = 2.0e-07 Identities = 21/33 (63%), Positives = 28/33 (84%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+V+LG F+TA AAARAYD AA++FRG +A +NF

Sbjct: 56 RVWLGTFETAEAAARAYDAAALRFRGSKAKLNF 88

gn1|PID|d1007901 (D38125) EREBP-4 [Nicotiana tabacum] Length = 291

Score = 110 (51.4 bits), Expect = 2.0e-07, P = 2.0e-07 Identities = 22/38 (57%), Positives = 29/38 (76%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNID 61

G +V+LG FDTA AA+AYDRAA K RG +A +NF ++

Sbjct: 167 GTRVWLGTFDTAIEAAKAYDRAAFKLRGSKAIVNFPLE 204

 $gi \mid 3617742$ (AC005687) RAP2.6 [Arabidopsis thaliana] Length = 192

Score = 110 (51.4 bits), Expect = 2.0e-07, P = 2.0e-07. Identities = 21/33 (63%), Positives = 28/33 (84%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+V+LG F+TA AAARAYD AA++FRG +A +NF

Sbjct: 84 RVWLGTFETAEAAARAYDAAALRFRGSKAKLNF 116

gi | 1903358 (AC000104) Similar to Nicotiana EREBP-3 (gb | D38124).

[Arabidopsis thaliana]

Length = 133

Score = 106 (49.5 bits), Expect = 7.4e-07, P = 7.4e-07

Identities = 22/35 (62%), Positives = 26/35 (74%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

G++V+LG FDTA AARAYDRAA RG A +NF

Sbjct: 42 GERVWLGTFDTAEDAARAYDRAAYSMRGKAAILNF 76

Length = 300

Score = 105 (49.0 bits), Expect = 1.0e-06, P = 1.0e-06Identities = 21/38 (55%), Positives = 28/38 (73%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNID 61 G +V+LG FDTA AARAYD AA + RG +A +NF ++ Sbjct: 178 GSRVWLGTFDTAIEAARAYDEAAFRLRGSKAILNFPLE 215

Score = 31 (14.5 bits), Expect = 1.1e-06, Sum P(2) = 1.1e-06 Identities = 7/17 (41%), Positives = 9/17 (52%)

Query: 11 RRTGRWESHIWDCGKQV 27 R G+W + I D K V Sbjct: 56 RPWGKWAAEIRDPSKGV 72

Score = 101 (47.2 bits), Expect = 1.1e-06, Sum P(2) = 1.1e-06 Identities = 22/35 (62%), Positives = 26/35 (74%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58 G +V+LG F TA AARAYD AAIK RG +A +NF Sbjct: 71 GVRVWLGTFKTADEAARAYDVAAIKIRGRKAKLNF 105

Score = 30 (14.0 bits), Expect = 2.7e-06, Sum P(2) = 2.7e-06Identities = 7/16 (43%), Positives = 10/16 (62%)

Query: 11 RRTGRWESHIWDCGKQ 26 R GR+ + I D GK+ Sbjct: 31 RPWGRYAAEIRDPGKK 46

Score = 100 (46.7 bits), Expect = 2.7e-06, Sum P(2) = 2.7e-06Identities = 21/33 (63%), Positives = 24/33 (72%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58 +V+LG FDTA AARAYD AA FRG +A NF Sbjct: 48 RVWLGTFDTAEEAARAYDTAARDFRGAKAKTNF 80

gn1 | PID | d1033383 (AB008106) ethylene responsive element binding factor 4 [Arabidopsis thaliana] Length = 222

Score = 30 (14.0 bits), Expect = 2.8e-06, Sum P(2) = 2.8e-06Identities = 7/16 (43%), Positives = 10/16 (62%)

Query: 11 RRTGRWESHIWDCGKQ 26 R GR+ + I D GK+

Sbjct: 31 RPWGRYAAEIRDPGKK 46

Score = 100 (46.7 bits), Expect = 2.8e-06, Sum P(2) = 2.8e-06

Identities = 21/33 (63%), Positives = 24/33 (72%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+V+LG FDTA AARAYD AA FRG +A NF

Sbjct: 48 RVWLGTFDTAEEAARAYDTAARDFRGAKAKTNF 80

<u>gi|1707016</u> (U78721) cadmium-induced protein isolog [Arabidopsis thaliana] Length = 218

Score = 101 (47.2 bits), Expect = 3.7e-06, P = 3.7e-06Identities = 20/33 (60%), Positives = 26/33 (78%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+V+LG FDTA AA AYD+AA +FRG +A +NF

Sbjct: 93 RVWLGTFDTAEEAALAYDKAAFEFRGHKAKLNF 125

gi|2281629 (AF003095) AP2 domain containing protein RAP2.2 [Arabidopsis
thaliana]

Length = 246

Score = 101 (47.2 bits), Expect = 3.7e-06, P = 3.7e-06Identities = 20/35 (57%), Positives = 25/35 (71%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

G + +LG FDTA AARAYD AA + RG +A +NF

Sbjct: 16 GSREWLGTFDTAEEAARAYDAAARRIRGTKAKVNF 50

gi 2213783 (U89256) Pti5 [Lycopersicon esculentum]

Length = 161

Score = 100 (46.7 bits), Expect = 5.1e-06, P = 5.1e-06

Identities = 20/35 (57%), Positives = 26/35 (74%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

G +V+LG F+TA AA AYDRAA + RG +A +NF

Sbjct: 81 GARVWLGTFETAEEAALAYDRAAFRMRGAKALLNF 115

gnl|PID|d1007900 (D38124) EREBP-3 [Nicotiana tabacum]

Length = 225

Score = 30 (14.0 bits), Expect = 7.3e-06, Sum P(2) = 7.3e-06

Identities = 7/16 (43%), Positives = 10/16 (62%)

Query: 11 RRTGRWESHIWDCGKQ 26

R GR+ + I D GK+

Sbjct: 33 RPWGRYAAEIRDPGKK 48

Score = 97 (45.3 bits), Expect = 7.3e-06, Sum P(2) = 7.3e-06

Identities = 20/33 (60%), Positives = 25/33 (75%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+V+LG FDTA AA+AYD AA +FRG +A NF

Sbjct: 50 RVWLGTFDTAEEAAKAYDTAAREFRGPKAKTNF 82

gi|1732406 (U81157) S25-XP1 DNA binding protein [Nicotiana tabacum]
Length = 277

Score = 98 (45.8 bits), Expect = 9.8e-06, P = 9.8e-06Identities = 20/44 (45%), Positives = 28/44 (63%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDDDL 67

G +V+LG FD+ AAA AYD+AA RG A +NF ++ + L

Sbjct: 114 GVRVWLGTFDSPEAAALAYDQAAFLMRGTSAILNFPVETVQESL 157

gi 3600050 (AF080120) contains similarity to AP2 domain containing

proteins [Arabidopsis thaliana]

Length = 287

Score = 31 (14.5 bits), Expect = 1.3e-05, Sum P(2) = 1.3e-05Identities = 6/17 (35%), Positives = 10/17 (58%)

Query: 11 RRTGRWESHIWDCGKQV 27

R G+W + ID ++V

Sbict: 93 RPWGKWAAEIRDPSRRV 109

Score = 95 (44.4 bits), Expect = 1.3e-05, Sum P(2) = 1.3e-05

Identities = 19/33 (57%), Positives = 24/33 (72%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+V+LG FDTA AA YD AAI+ RG A++NF

Sbjct: 110 RVWLGTFDTAEEAAIVYDNAAIQLRGPNAELNF 142

gn1|PID|d1032484 (AB013301) ethylene responsive element binding factor

[Arabidopsis thaliana]

Length = 281

Score = 97 (45.3 bits), Expect = 1.4e-05, P = 1.4e-05

Identities = 19/38 (50%), Positives = 28/38 (73%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNID 61

G +V+LG F+TA AARAYD+ A + RG +A +NF ++

Sbjct: 159 GTRVWLGTFETAIEAARAYDKEAFRLRGSKAILNFPLE 196

gn1|PID|d1033382 (AB008105) ethylene responsive element binding factor

3 [Arabidopsis thaliana]

Length = 225

Score = 97 (45.3 bits), Expect = 1.4e-05, P = 1.4e-05

Identities = 21/36 (58%), Positives = 25/36 (69%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNID 61

+V+LG FD+A AARAYD AA RG +A NF ID Sbjct: 51 RVWLGTFDSAEEAARAYDSAARNLRGPKAKTNFPID 86

gn1|PID|e327065 (Z97343) EREBP-4 homolog [Arabidopsis thaliana] Length = 603

Score = 97 (45.3 bits), Expect = 1.4e-05, P = 1.4e-05Identities = 19/38 (50%), Positives = 28/38 (73%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNID 61 G +V+LG F+TA AARAYD+ A + RG +A +NF ++ Sbjct: 159 GTRVWLGTFETAIEAARAYDKEAFRLRGSKAILNFPLE 196

gi | 2213785 (U89257) Pti6 [Lycopersicon esculentum] Length = 248

Score = 30 (14.0 bits), Expect = 1.5e-05, Sum P(2) = 1.5e-05 Identities = 6/12 (50%), Positives = 7/12 (58%)

Query: 11 RRTGRWESHIWD 22 R GRW + I D Sbjct: 104 RPWGRWAAEIRD 115

Score = 95 (44.4 bits), Expect = 1.5e-05, Sum P(2) = 1.5e-05Identities = 18/37 (48%), Positives = 26/37 (70%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNI 60 GK+V+LG +DT AA YD+AA+K +G +A NF + Sbjct: 119 GKRVWLGTYDTPEEAAVVYDKAAVKLKGPDAVTNFPV 155

Score = 96 (44.8 bits), Expect = 1.9e-05, P = 1.9e-05Identities = 19/35 (54%), Positives = 25/35 (71%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58
G +++LG F TA AARAYD AA + RG +A +NF
Sbjct: 105 GARIWLGTFKTAEEAARAYDAAARRIRGSKAKVNF 139

gn1|PID|d1033380 (AB008103) ethylene responsive element binding factor
1 [Arabidopsis thaliana]
Length = 266

Score = 96 (44.8 bits), Expect = 1.9e-05, P = 1.9e-05 Identities = 20/35 (57%), Positives = 25/35 (71%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58
G +V+LG F+TA AA AYDRAA + RG A +NF
Sbjct: 168 GARVWLGTFETAEDAALAYDRAAFRMRGSRALLNF 202

Score = 93 (43.4 bits), Expect = 4.9e-05, P = 4.9e-05Identities = 18/35 (51%), Positives = 26/35 (74%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

G +V+LG ++TA AA AYD+AA + RG +A +NF

Sbjct: 128 GARVWLGTYETAEEAAIAYDKAAYRMRGSKAHLNF 162

gi|3264767 (AF071893) AP2 domain containing protein [Prunus armeniaca]
Length = 280

Score = 93 (43.4 bits), Expect = 4.9e-05, P = 4.9e-05Identities = 19/35 (54%), Positives = 25/35 (71%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58 G +V+LG F+TA AARAYD A + RG +A +NF

Sbjct: 33 GVRVWLGTFNTAEEAARAYDSEARRIRGKKAKVNF 67

<u>gi|3065895</u> (AF058827) TSI1 [Nicotiana tabacum] Length = 251

Score = 30 (14.0 bits), Expect = 5.4e-05, Sum P(2) = 5.4e-05Identities = 6/12 (50%), Positives = 7/12 (58%)

Query: 11 RRTGRWESHIWD 22 R GRW + I D

Sbjct: 113 RPWGRWAAEIRD 124

Score = 91 (42.5 bits), Expect = 5.4e-05, Sum P(2) = 5.4e-05Identities = 18/35 (51%), Positives = 24/35 (68%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58 GK+V+LG +DT AA YD AA+K +G +A NF

Sbjct: 128 GKRVWLGTYDTPEEAAIVYDAAAVKLKGPDAVTNF 162

Score = 32 (14.9 bits), Expect = 8.0e-05, Sum P(3) = 8.0e-05Identities = 7/17 (41%), Positives = 10/17 (58%)

Query: 11 RRTGRWESHIWDCGKQV 27

R G+W + I D K+V Sbjct: 75 RPWGKWAAEIRDPRKRV 91

Score = 39 (18.2 bits), Expect = 8.0e-05, Sum P(3) = 8.0e-05Identities = 8/13 (61%), Positives = 11/13 (84%)

Query: 26 QVYLGGFDTAHAA 38 +V+LG F+TA AA Sbjct: 92 RVWLGTFNTAEAA 104

Score = 74 (34.6 bits), Expect = 8.0e-05, Sum P(3) = 8.0e-05

Identities = 16/27 (59%), Positives = 19/27 (70%)

Query: 38 AARAYDRAAIKFRGVEADINFNIDDYD 64

AARAYDR A K RG +A +NF +D D

Sbjct: 103 AARAYDREARKIRGKKAKVNFPNEDDD 129

gn1|PID|d1007902 (D38126) EREBP-2 [Nicotiana tabacum] Length = 233

Score = 91 (42.5 bits), Expect = 9.5e-05, P = 9.5e-05Identities = 18/35 (51%), Positives = 26/35 (74%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

G +V+LG ++TA AA AYD+AA + RG +A +NF

Sbjct: 121 GARVWLGTYETAEEAALAYDKAAYRMRGSKALLNF 155

gi 2344900 (AC002388) EREBP isolog [Arabidopsis thaliana]
Length = 226

Score = 90 (42.0 bits), Expect = 0.00013, P = 0.00013Identities = 18/35 (51%), Positives = 25/35 (71%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

G +V+LG ++T AA AYDRAA + RG +A +NF

Sbjct: 114 GARVWLGTYETPEDAAVAYDRAAFQLRGSKAKLNF 148

gi|2281633 (AF003097) AP2 domain containing protein RAP2.4 [Arabidopsis
thaliana]

Length = 229

Score = 90 (42.0 bits), Expect = 0.00013, P = 0.00013Identities = 19/33 (57%), Positives = 24/33 (72%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+++LG FDTA AA AYD+AA K RG A +NF

Sbjct: 70 RLWLGTFDTAEEAALAYDKAAYKLRGDFARLNF 102

gnl|PID|d1033381 (AB008104) ethylene responsive element binding factor

2 [Arabidopsis thaliana]

Length = 243

Score = 88 (41.1 bits), Expect = 0.00025, P = 0.00025

Identities = 19/35 (54%), Positives = 24/35 (68%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

G +V+LG F+TA AA AYD AA + RG A +NF

Sbjct: 139 GARVWLGTFETAEDAALAYDIAAFRMRGSRALLNF 173

gn1|PID|e1287891 (AL022605) putative protein [Arabidopsis thaliana] Length = 272

Score = 88 (41.1 bits), Expect = 0.00025, P = 0.00025Identities = 19/33 (57%), Positives = 23/33 (69%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58 +++LG FDTA AA AYD AA K RG A +NF

Sbjct: 116 RLWLGTFDTAEEAAMAYDLAAYKLRGEFARLNF 148

gnl|PID|e353340 (AJ001911) putative Ckc2 [Arabidopsis thaliana]
Length = 246

Score = 88 (41.1 bits), Expect = 0.00025, P = 0.00025Identities = 19/35 (54%), Positives = 25/35 (71%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

G +V+LG F+TA AA AYD AA + RG +A +NF Sbjct: 101 GVRVWLGTFNTAEEAAMAYDVAAKQIRGEKAKLNF 135

gi | 2281631 (AF003096) AP2 domain containing protein RAP2.3 [Arabidopsis
thaliana]
Length = 248

Score = 87 (40.6 bits), Expect = 0.00035, P = 0.00034 Identities = 19/35 (54%), Positives = 25/35 (71%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

G +V+LG F+TA AA AYD AA + RG +A +NF

Sbjct: 100 GVRVWLGTFNTAEEAAMAYDVAAKQIRGDKAKLNF 134

gn1|PID|d1007899 (D38123) ERF1 [Nicotiana tabacum] Length = 236

Score = 87 (40.6 bits), Expect = 0.00035, P = 0.00034 Identities = 17/35 (48%), Positives = 25/35 (71%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58 G +V+LG ++T AA AYD+AA + RG +A +NF

Sbjct: 127 GARVWLGTYETDEEAAIAYDKAAYRMRGSKAHLNF 161

gnl|PID|d1034764 (AB007788) DREB1B [Arabidopsis thaliana]

Length = 213

Score = 32 (14.9 bits), Expect = 0.00039, Sum P(2) = 0.00039 Identities = 5/16 (31%), Positives = 10/16 (62%)

Query: 11 RRTGRWESHIWDCGKQ 26 R +G+W S + + K+ Sbjct: 54 RNSGKWVSEVREPNKK 69

Score = 82 (38.3 bits), Expect = 0.00039, Sum P(2) = 0.00039

Identities = 17/33 (51%), Positives = 23/33 (69%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+++LG F TA AARA+D AA+ RG A +NF

Sbjct: 71 RIWLGTFQTAEMAARAHDVAALALRGRSACLNF 103

<u>gi|1899058</u> (U77378) transcriptional activator CBF1 [Arabidopsis thaliana] Length = 213

Score = 32 (14.9 bits), Expect = 0.00039, Sum P(2) = 0.00039Identities = 5/16 (31%), Positives = 10/16 (62%)

Query: 11 RRTGRWESHIWDCGKQ 26

R + G + W S + + K +

Sbjct: 54 RNSGKWVSEVREPNKK 69

Score = 82 (38.3 bits), Expect = 0.00039, Sum P(2) = 0.00039

Identities = 17/33 (51%), Positives = 23/33 (69%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+++LG F TA AARA+D AA+ RG A +NF

Sbjct: 71 RIWLGTFQTAEMAARAHDVAALALRGRSACLNF 103

gi 2281643 (AF003102) AP2 domain containing protein RAP2.9 [Arabidopsis

thaliana] Length = 94

Score = 86 (40.2 bits), Expect = 0.00048, P = 0.00048Identities = 18/40 (45%), Positives = 25/40 (62%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINFNIDDYDD 65

+++LG + TA AAARAYD A RG A +NF + + D

Sbjct: 3 RIWLGSYKTAVAAARAYDTAVFYLRGPSARLNFPEEVFKD 42

Score = 85 (39.7 bits), Expect = 0.00066, P = 0.00066Identities = 16/30 (53%), Positives = 22/30 (73%)

Query: 24 GKQVYLGGFDTAHAAARAYDRAAIKFRGVE 53

G +V+LG F TA AA AYD+AA++ RG +

Sbjct: 132 GVRVWLGTFQTAEEAAMAYDKAAVRIRGTQ 161

gnl|PID|e353195 (Z99707) APETALA2 domain containing protein homolog

[Arabidopsis thaliana]

Length = 196

Score = 29 (13.5 bits), Expect = 0.00066, Sum P(2) = 0.00066

```
Identities = 5/16 (31%), Positives = 10/16 (62%)
```

Query: 11 RRTGRWESHIWDCGKQ 26

R+G+W+I+K+

Sbjct: 36 RKWGKWVAEIREPNKR 51

Score = 83 (38.8 bits), Expect = 0.00066, Sum P(2) = 0.00066

Identities = 16/33 (48%), Positives = 21/33 (63%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+++LG + T AAARAYD A RG A +NF

Sbjct: 53 RIWLGSYSTPEAAARAYDTAVFYLRGPSARLNF 85

gi | 2281647 (AF003104) AP2 domain containing protein RAP2.11

[Arabidopsis thaliana]

Length = 255

Score = 31 (14.5 bits), Expect = 0.00090, Sum P(2) = 0.00090

Identities = 5/17 (29%), Positives = 11/17 (64%)

Query: 11 RRTGRWESHIWDCGKQV 27

R + G + W + I D + + +

Sbjct: 30 RPSGKWVAEIKDTTQKI 46

Score = 81 (37.8 bits), Expect = 0.00090, Sum P(2) = 0.00090

Identities = 17/33 (51%), Positives = 21/33 (63%)

Query: 26 QVYLGGFDTAHAAARAYDRAAIKFRGVEADINF 58

+++LG F+TA AARAYD AA RG NF

Sbjct: 47 RMWLGTFETAEEAARAYDEAACLLRGSNTRTNF 79

Parameters:

V=100

B=50

H=0

Lambda K H

0.324 0.140 0.453

Cutoff to enter 2nd pass: >= 38 (0.0 bits)

E S T1 T2 X1 X2 W Gap

10.0 59 11 11 -15 -22 40 50

Database: Non-redundant GenBank CDS translations+PDB+SwissProt+SPupdate+PIR

Posted date: Oct 22, 1998 7:43 AM # of letters in database: 101,007,400

of sequences in database: 331,304

Number of Hits to DB: 1st pass: 14105114, 2nd pass: 228077

Number of Sequences: 1st pass: 331304, 2nd pass: 2078

Number of extensions: 1st pass: 447103, 2nd pass: 171014

Number of successful extensions: 1st pass: 2078, 2nd pass: 2859

Number of sequences better than 10: 80

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